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Part II

Environmental Protection Agency

High Altitude Emission Standards Voluntary Compliance Program for 1981 Model Year Light-Duty Motor Vehicles; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 86

[FRL-1420-2]

Control of Air Pollution From New Motor Vehicle Engines; High Altitude Emission Standards Voluntary Compliance Program for 1981 Model Year Light-Duty Motor Vehicles

AGENCY: Environmental Protection Agency.

ACTION: Final Rulemaking.

SUMMARY: The EPA is promulgating new exhaust and evaporative emission standards which are voluntary for 1981 model year light-duty vehicles (LDV's) and light-duty trucks (LDT's) when sold for principal use at altitudes above 4,000 feet (1,219 meters) mean sea level. The standards in this high-altitude voluntary compliance program are identical to those proposed for mandatory compliance by 1982 and 1983 model year vehicles in the Agency's January 24, 1980, Notice of Proposed Rulemaking (NPRM) entitled, "Proposed High-Altitude Emission Standards for 1982 and 1983 Model Year Light-Duty Motor Vehicles." (45 FR 5988).

EFFECTIVE DATE: These amendments are effective April 28, 1980.

ADDRESSES: Copies of material relevant to this rulemaking action are contained in the public docket which was established for the NPRM pertaining to the mandatory 1982 and 1983 model year standards. This docket, number A-79-14, is located at the U.S. Environmental Protection Agency, Central Docket Section, Waterside Mall, Room 2903 (EPA Library), 401 M. Street, SW., Washington, D.C. 20460. The docket may be inspected between the hours of 8:00 a.m. and 4:00 p.m. Monday through Friday. A reasonable fee may be charged for copying services.

FOR FURTHER INFORMATION CONTACT: Richard Wilcox, Emission Control Technology Division, Environmental Protection Agency, 2565 Plymouth Road, Ann Arbor, Michigan 48105, 313-668-4390.

SUPPLEMENTARY INFORMATION:

Background

During model year 1977, EPA regulations required that new light-duty motor vehicles intended for sale at high-altitude demonstrate compliance with the applicable (low altitude) emission standards at high altitude. One result of this requirement was that some motor vehicle manufacturers either chose not to certify or failed to certify for sale at high altitude, some of the models in their product lines. The limitation in the number of models available for sale in these areas generated an adverse reaction among the affected vehicle purchasers and automobile dealerships. With passage of the Clean Air Amendments of 1977, the Congress, in section 213 of those amendments (Sections 202(f) and 206(f) of the Clean Air Act as amended), revoked the EPA high-altitude motor vehicle certification regulations, prohibited the establishment of any other regulations governing the sale or distribution of motor vehicles at high-altitude before 1981, and required that, beginning with the 1984 model year, all new light-duty vehicles (LDVs) comply with the applicable emission standards regardless of the altitude at which they are sold. On January 24, 1980, the Agency proposed mandatory high-altitude standards for 1982 and 1983 model year motor vehicles (45 FR 5988).

Control Strategy

In the NPRM concerning 1982 and 1983 model year vehicles, EPA indicated that it would implement a voluntary program for complying with the high-altitude standards during the 1981 model year. Although a compulsory program in 1981 would have been preferred, the Agency determined that high-altitude regulations could not be fully implemented before certification of the 1981 model year vehicles had begun.

EPA is convinced, however, that the severity of atmospheric pollution in high-altitude areas justifies control of high-altitude vehicle emissions as early as is feasible. The Agency has found that motor vehicles which comply with low-altitude standards produce as much as 50 percent more exhaust hydrocarbon (HC) and nearly 100 percent more carbon monoxide (CO) when tested at 5,000 feet above sea level. We have also learned that, in most high-altitude urban areas, motor vehicles account for more than half of the total HC emissions and almost all of the CO emissions. These emission levels combine with summer sunlight and stable winter atmospheric conditions to cause numerous violations of the ambient air quality standards for ozone and CO in high-altitude metropolitan areas. Therefore, in recognizing the manufacturing leadtime situation, and at the same time the need to take immediate action to safeguard the public health, EPA is now promulgating and encouraging participation in a voluntary compliance program for the 1981 model year.

EPA has been encouraged by the domestic automobile manufacturers' attitude toward reducing the severity of high-altitude pollution problems, and we expect that the entire industry will take advantage of the 1981 voluntary compliance program whenever possible. Some specific reasons why this program may be useful are:

1. As indicated above, vehicles designed to meet low altitude standards at low altitudes often do not perform well in the areas of fuel economy, emission control, and driveability when driven at high altitude. Although it is currently possible for a manufacturer to certify better-performing vehicles for sale in high altitude areas, this may only be done if he can demonstrate compliance with the low altitude standards at high altitude. Since manufacturers have experienced difficulty in certifying to the low altitude standards at high altitude, some vehicles which might perform better at high altitudes have not been made available to the public. The 1981 voluntary compliance program will permit manufacturers to meet numerically less stringent HC and CO standards when certifying at high altitudes. This will afford the manufacturer an opportunity to make available in high altitude areas vehicles which have better fuel economy, emission control and driveability performance than that achieved by vehicles designed to meet low altitude standards at low altitudes when driven in high altitude areas.

2. In 1981, parameter adjustment regulations (PAR) (44 FR 2960) will affect the adjustability of idle fuel-air mixtures and choke valve actions. It is conceivable that under some circumstances these regulations could constrain manufacturers from offering the most effective high-altitude performance adjustments. Under section 215 of the Act, EPA is developing regulations to require the availability of high-altitude performance adjustment instructions. These adjustments are intended to reduce emissions at high altitude by allowing simple calibration changes to vehicle engines. If the adjustable parameter is limited to such a degree as to preclude simple and effective performance adjustments, or if potential adjustments are totally excluded, manufacturers can certify a different configuration for a high-altitude vehicle under the voluntary compliance program that takes full advantage of different calibrations. This would allow high-altitude emissions to be reduced to the lowest possible level;

3. By using the voluntary program, motor vehicles which are unsafe and, therefore, unavailable in high-altitude areas, or vehicles that have degraded

driveability when operated under high-altitude conditions, can be improved by certifying them with high-altitude configured components which may otherwise not have been previously allowed under the vehicle's certificate of conformity because they could not meet the levels of the low-altitude standards; and

4. Due to resource constraints, manufacturers may find it advantageous to certify some engine families in 1981 and "carry over" their certification data to comply with the 1982 and 1983 mandatory standards.

Standards

Vehicles certified under the high-altitude voluntary certification program must meet the high-altitude standards as originally proposed in the January 24, 1980 NPRM. Compliance testing will be performed at 5,400 feet (1,650 meters). These standards are consistent with the Congressional intent of significantly reducing motor vehicle emissions at high altitudes. The level of each exhaust emission standard was determined by using actual emission performance data from a 1970 fleet of 25 light-duty vehicles which were tested at both high and low altitudes.[1] The evaporative emission standards were derived from a theoretical analysis rather than actual vehicle tests.[2] The following table summarizes the voluntary standards at the reference altitude.

Voluntary Standards at Reference Altitude of 5,400 feet (Denver Test Site)

	HC [1]	CO [1]	NO_x [1]	Evap.[2]
LDV 1981	0.57	7.8	1.0	2.6
LDT 1981	2.0	26	2.3	2.6

[1] Grams per mile.
[2] Grams per test.

Warranty, Recall Actions, and Selective Enforcement Audits

As previously stated, certification with the high-altitude standards for any 1981 model year vehicle shall be optional. Vehicle manufacturers will not be liable for violations of section 203(a)(1) of the Clean Air Act for selling or introducing into commerce, at high-altitude locations, vehicles certified to meet only low-altitude standards. However, once a vehicle manufacturer elects to certify and build vehicles to meet high-altitude standards, the manufacturer is responsible for compliance with all other appropriate provisions of the Act. The Agency may elect to conduct recall testing and Selective Enforcement Audits of such vehicles at high-altitude locations and take enforcement action if the vehicles fail to meet high-altitude standards.

Likewise, the Agency intends to monitor high-altitude vehicles which a manufacturer may choose to sell for principal use at low-altitude locations. Recall investigations will be initiated if there are data to indicate that such vehicles do not meet low-altitude standards when tested at low-altitude locations, and recalls will be considered where appropriate. In both situations mentioned above (i.e., where vehicles certified and configured to meet high-altitude standards are sold for principal use at either high- or low-altitude locations), vehicle manufacturers shall be required to comply with all applicable warranty requirements of section 207 of the Act.

Economic and Environmental Impact

Because of the voluntary nature of this action, it is impossible to quantify the economic and environmental consequences. However, these issues can be addressed in a qualitative manner. It is self-evident that manufacturers would not participate in the program if it were excessively expensive. For this reason, the cost of the regulations is expected to be relatively small with a negligible economic impact on the industry. Sales for some manufacturers could actually increase and offset any economic impact if by participating in the voluntary compliance program a vehicle with superior driveability and performance is produced. Better driveability and performance also benefit consumers. The environmental impact from this regulation will be positive. Vehicles manufactured in compliance with the high-altitude standards should produce less CO and HC emissions when operated at high altitude than if they complied only with the existing low-altitude standards.

Changes to the Preexisting High-Altitude Regulations

As previously mentioned, a voluntary certification program for high-altitude motor vehicles is already in effect. This program was promulgated by EPA after Congress revoked the mandatory 1977 high-altitude standards. The final rule which is being promulgated in this rulemaking action affects many but not all of the sections in 40 CFR Part 86 which pertain to the current voluntary rule. Only the sections of the preexisting CFR that are being modified by this final rulemaking action are published in this **Federal Register** notice. Therefore, the preexisting sections of the CFR that remain in effect are not republished here, and motor vehicle manufacturers must also comply with their requirements.

Public Participation: The voluntary compliance program for 1981 is not binding on the automotive industry and, therefore, does not adversely affect the private sector. This action also does not adversely affect the public health and welfare since participation in the voluntary compliance program will produce tangible benefits in the form of reduced air pollution in high-altitude areas. Also, any delay in implementing this program will negate its effectiveness since manufacturers are currently beginning to certify 1981 model year vehicles. For these reasons, EPA finds that notice and opportunity to comment on the regulations implementing the program are unnecessary and would be contrary to the public interest.

Note.—The Environmental Protection Agency has determined that this document is not a "significant" regulation requiring the preparation of a Regulatory Analysis under Executive Order 12044.

Dated: March 18, 1980.

Douglas M. Costle,

Administrator, U.S. Environmental Protection Agency.

40 CFR Part 86 is amended as follows:

Subpart A—General Provisions

1. A new § 86.081–1 is added. This section is identical to § 86.078–1 except that paragraph (c) is revised.

§ 86.081–1 General applicability.

(a) The provisions of this subpart apply to 1981 and later model year new gasoline-fueled and Diesel light-duty vehicles, 1981 and later model year new gasoline-fueled and Diesel light-duty trucks and 1981 and later model year new gasoline-fueled and Diesel heavy-duty engines.

(b) *Optional applicability.* A manufacturer may request to certify any heavy-duty vehicle 10,000 pounds GVWR or less as a light-duty truck: Heavy-duty vehicle provisions do not apply to such a vehicle.

(c)(1) *Optional high-altitude certification.* A manufacturer of light-duty vehicles and light-duty trucks may request to demonstrate compliance with the optional high-altitude standards at high altitudes by identifying such vehicles in the application for certification. The optional high-altitude emission standards are contained in

[1] Proposed High-Altitude Emission Standards for 1982 and 1983 Model Year Light-Duty Motor Vehicles, 45 FR 5988 January 24, 1980.

[2] Leiferman, M. 1979. Effect of Altitude on Non-Controlled Evaporative Emissions from Gasoline Fueled Vehicles. EPA Technical Report. Docket A-79-14.

§ 86.081–8, paragraphs (d) and (e) and § 86.081–9, paragraphs (d) and (e).

(2) The provisions of this subpart applicable to light-duty vehicles and light-duty trucks sold for principal use at designated high altitudes shall apply to any manufacturer who elects to demonstrate compliance with the optional high-altitude standards at such elevations.

2. Section 86.081–2 is added.

§ 86.081–2 Definitions.

(a) The definitions in § 86.080–2 also apply beginning with the 1981 model year vehicles.

(b) In addition to the definitions indicated in paragraph (a) of this section the following definition also applies:

"High-altitude reference point" means an elevation of 1,620 meters (5,400 feet) plus or minus 100 meters (330 feet), or equivalent observed barometric test conditions of 82 kPa (24.2 inches Hg), plus or minus 1 kPa (0.30 inches Hg).

3. In § 86.081–8, paragraphs (d) and (e) are added.

§ 86.081–8 Emission standards for 1981 model year light-duty vehicles.

* * * * *

(d)(1) Model year 1981 light-duty vehicles sold for principal use at designated high-altitude locations shall not exceed the following exhaust emission standards when tested at the high-altitude reference point if the manufacturer of such vehicles elects to demonstrate compliance with the high-altitude emission standards.

(i) *Hydrocarbons.* 0.57 grams per vehicle mile;

(ii) *Carbon monoxide.* 7.8 grams per vehicle mile;

(iii) *Oxides of nitrogen.* 1.0 gram per vehicle mile, except that oxides of nitrogen emissions from 1981 light-duty vehicles manufactured by American Motors Corporation shall not exceed 2.0 grams per vehicle mile.

(2) The standards set forth in paragraph (d)(1) of this section refer to the exhaust emitted over a driving schedule as set forth in Subpart B of this part and measured and calculated in accordance with those procedures.

(e)(1) Fuel evaporative emissions from 1981 model year gasoline-fueled light-duty vehicles sold for principal use at designated high-altitude areas shall not exceed 2.6 gram per test when tested at the high-altitude reference point if the manufacturer of such vehicles elects to demonstrate compliance with the high-altitude emission standards.

(2) The standard set forth in paragraph (e)(1) of this section refers to a composite sample of the fuel evaporative emissions collected under the conditions set forth in Subpart B of this part and measured in accordance with those procedures.

4. In § 86.081–9, paragraphs (d) and (e) are added.

§ 86.081–9 Emission standards for 1981 model year light-duty trucks.

* * * * *

(d)(1) Model year from 1981 light-duty trucks sold for principal use at designated high-altitude locations shall not exceed the following exhaust emission standards when tested at the high-altitude reference point if the manufacturer of such vehicles elects to demonstrate compliance with the high-altitude standards.

(i) *Hydrocarbons.* 2.0 grams per vehicle mile;

(ii) *Carbon monoxide.* 26.0 grams per vehicle mile;

(iii) *Oxides of nitrogen.* 2.3 grams per vehicle mile.

(2) The standards set forth in paragraph (d)(1) of this section refer to the exhaust emitted over a driving schedule as set forth in Subpart B of this part and measured and calculated in accordance with those procedures.

(e)(1) Fuel evaporative emissions from 1981 model year gasoline-fueled light-duty trucks sold for principal use at designated high-altitude areas shall not exceed 2.6 grams per test when tested at the high-altitude reference point if the manufacturer of such vehicles elects to demonstrate compliance with high-altitude emission standards.

(2) The standard set forth in paragraph (e)(1) of this section refers to a composite sample of the fuel evaporative emissions collected under the conditions set forth in Subpart B of this part and measured in accordance with those procedures.

5. In § 86.081–21, paragraph (a) is revised.

§ 86.081–21 Application for certification.

(a) A separate application for a certificate of conformity shall be made for each set of standards (except for high-altitude standards) and each class of new motor vehicle engines. Such application shall be made to the Administrator by the manufacturer and shall be updated and corrected by amendment.

* * * * *

6. Section 86.081–28 is added. This section is identical to § 86.079–28 except for paragraph (a)(4)(i)(B).

§ 80.081–28 Compliance with emission standards.

(a)(1) Paragraph (a) of this section applies to light-duty vehicles and light-duty trucks.

(2) The applicable exhaust and fuel evaporative emission standards of this subpart apply to the emissions of vehicles for their useful life.

(3) Since it is expected that emission control efficiency will change with mileage accumulation on the vehicle, the emission level of a vehicle which has accumulated 50,000 miles will be used as the basis for determining compliance with the standards.

(4) The procedure for determining compliance of a new motor vehicle with exhaust emission standards is as follows:

(i) Separate emission deterioration factors shall be determined from the exhaust emission results of the durability-data vehicle(s) for each engine-system combination. A separate factor shall be established for exhaust HC, exhaust CO), and exhaust NO_x for each engine-system combination. A separate evaporative emission deterioration factor shall be determined for each evaporative emission family-evaporative emission control system combination from the testing conducted by the manufacturer.

(A) The applicable results to be used in determining the exhaust emission deterioration factors for each engine-system combination shall be:

(*1*) All valid exhaust emission data from the tests required under § 86.081–26(a)(4) except the zero-mile tests. These shall include the official test results, as determined in § 86.079–29 for all tests conducted on all durability-data vehicles of the combination selected under § 86.081–24(c) (including all vehicles elected to be operated by the manufacturer under § 86.081–24(c)(1)(ii)).

(*2*) All exhaust emission data from the tests conducted before and after the scheduled maintenance provided in § 86.079–25.

(*3*) All exhaust emission data from tests required by maintenance approved under § 86.079–25, in those cases where the Administrator conditioned his approval for the performance of such maintenance on the inclusion of such data in the deterioration factor calculation.

(B) All applicable exhaust emission results shall be plotted as a function of the mileage on the system, rounded to the nearest mile, and the best fit straight lines, fitted by the method of least squares, shall be drawn through all these data points. The interpolated 4,000- and 50,000-mile points on this line must be within the low-altitude standards provided in § 86.081–8 or § 86.081–9 as applicable, or the data will not be acceptable for use in calculation of a deterioration factor, unless no applicable data point exceeded the

standard. An exhaust emission deterioration factor shall be calculated for each engine-system combination as follows:

Factor = Exhaust emissions interpolated to 50,000 divided by exhaust emissions interpolated to 4,000 miles.

These interpolate values shall be carried out to a minimum of four places to the right of the decimal point before dividing one by the other to determine the deterioration factor. The results shall be rounded to three places to the right of the decimal point in accordance with ASTME 29–67.

(C) An evaporative emissions deterioration factor shall be determined from the testing conducted as described in § 86.081–21(b)(4)(ii), for each evaporative emission family-evaporative emission control system combination to indicate the evaporative emission level at 50,000 miles relative to the evaporative emission level at 4,000 miles as follows:

Factor = Evaporative emission level at 50,000 miles minus the evaporative emission level at 4,000 miles.

The factor shall be established to a minimum of two places to the right of the decimal.

(ii)(A) The official exhaust emission test results for each emission-data vehicle at the 4,000-mile test point shall be multiplied by the appropriate deterioration factor: *Provided,* That if a deterioration factor as computed in paragraph (a)(4)(i)(B) of this section is less than one, that deterioration factor shall be one for the purposes of this paragraph.

(B) The official evaporative emission test results for each evaporative emission-data vehicle at the 4,000-mile test point shall be adjusted by addition of the appropriate deterioration factor: *Provided,* That if a deterioration factor as computed in paragraph (a)(4)(i)(C) of this section is less than zero, that deterioration factor shall be zero for the purposes of this paragraph.

(iii) The emissions to compare with the standard shall be the adjusted emissions of paragraph (a)(4)(ii)(A) and (B) of this section for each emission-data vehicle. Before any emission value is compared with the standard, it shall be rounded, in accordance with ASTM E 29–67, to two significant figures. The rounded emission values may not exceed the standard.

(iv) Every test vehicle of an engine family must comply with the exhaust emission standards, as determined in paragraph (a)(4)(iii) of this section, before any vehicle in that family may be certified.

(v) Every test vehicle of an evaporative emission family must comply with the evaporative emission standards, as determined in paragraph (a)(4)(iii) of this section, before any vehicle in that family may be certified.

(b)(1) Paragraph (b) of this section applies to heavy-duty engines.

(2) The exhaust emission standards for gasoline-fueled engines in § 86.080–11 or for Diesel engines in § 86.080–11 apply to the emissions of engines for their useful life.

(3) Since emission control efficiency decreases with the accumulation of hours on the engine, the emission level of a gasoline-fueled engine which has accumulated 1,500 hours of dynamometer operation or a diesel engine which has accumulated 1,000 hours of dynamometer operation will be used as the basis for determining compliance with the standards.

(4) The procedure for determining compliance of a new engine with exhaust emission standards is as follows:

(i) Separate emission deterioration factors shall be determined from the emission results of the durability-data engines for each engine-system combination. Separate factors shall be established for HC, CO, and for the combined emissions of HC and NO_x. For Diesel engines, separate factors shall also be established for the acceleration mode (designated as "A"), the lugging mode (designated as "B"), and the peak opacity (designated as "C").

(A) The applicable results to be used in determining the deterioration factors for each combination shall be:

(*1*) All valid emission data from the tests required under § 86.079–26(b). These shall include the official test results, as determined in § 86.079–29, for all tests conducted on all gasoline-fueled durability-data engines of the combination selected under § 86.081–24(c)(2) or on all Diesel durability-data engines of the combination selected under § 86.081–24(c)(3) (including all engines elected to be operated by the manufacturer under § 86.081–24(c)(2)(iii) for gasoline-fueled engines or under § 86.081–24(c)(3)(ii) for Diesel engines).

(*2*) All emission data from the tests conducted before and after maintenance provided in § 86.079–25(c)(2)(i)(A) for gasoline-fueled engines or in § 86.079–25(c)(2)(i)(B) for Diesel engines.

(*3*) All emission data from the tests conducted before and after maintenance provided in § 86.079–25(c)(2)(v)(C) for Diesel engines if emission tests were conducted.

(B) All applicable emission results for (*1*) HC, (*2*) CO, (*3*) HC+NO_x, (*4*) acceleration smoke ("A"), (*5*) lugging smoke ("B"), and (*6*) peak smoke ("C") shall be plotted as a function of durability hours which shall be consistently rounded to the nearest hour. Emission data shall have two figures to the right of the decimal. The best fit straight lines, fitted by the method of least squares, shall be drawn through these data points. The interpolated 125-hour and 1,500-hour points for gasoline-fueled engines or the 1,000-hour point for Diesel engines on each line, rounded to whole numbers in accordance with ASTM E 29–67, must be within the standards specified in § 86.080–10 for gasoline-fueled engines or in § 86.080–11 for Diesel engines or the data shall not be used in the calculation of a deterioration factor, unless no applicable data points exceed the standards.

(C) The interpolated values shall be used to calculate a deterioration factor as follows:

Factor = Exhaust emissions interpolated to 1,500 hours for gasoline-fueled engines or to 1,000 hours for Diesel engines minus the exhaust emissions interpolated to 125 hours. (Negative deterioration factors shall be considered zero).

(ii) The appropriate deterioration factor, carried out to two places to the right of the decimal point, shall be added to the exhaust emission test results, carried out to two places to the right of the decimal point, for each emission-data engine.

(iii) The emission values to compare with the standards shall be the adjusted emission values of paragraph (b)(4)(ii) of this section rounded to two significant figures in accordance with ASTM E 29–67 for each emission-data engine.

(iv) Every test engine of engine family must comply with all applicable standards, as determined in paragraph (b)(4)(iii) of this section, before any engine in that family will be certified.

7. Section 86.081–30 is added. This section is identical to § 86.079–30 except for paragraphs (a)(3), (a)(4), (a)(5), (a)(6), (b)(1)(i)(B), and (b)(1)(i)(C).

§ 86.081–30 Certification.

(a)(1) If, after a review of the test reports and data submitted by the manufacturer, data derived from any inspection carried out under § 86.078–7(c), and any other pertinent data or information, the Administrator determines that a test vehicle(s) (or test engines(s)) meet(s) the requirements of the Act and of this subpart, he will issue a certificate of conformity with respect to such vehicle(s) (or engine(s)) except in cases covered by paragraph (c) of this section.

(i) Each certificate of conformity shall state the altitudes(s) at which the

vehicle(s) covered by the certificate has demonstrated compliance with the applicable emission standards.

(2) Such certificate will be issued for such period not to exceed one model year as the Administrator may determine and upon such terms as he may deem necessary to assure that any new motor vehicle (or new motor vehicle engine) covered by the certificate will meet the requirements of the Act and of this part. Each such certificate shall contain the following language:

This certificate covers only those new motor vehicles (or new motor vehicle engines) which conform, in all material respects, to the design specifications that applied to those vehicles (or engines) described in the application for certification and which are produced during the—model year production period of the said manufacturer, as defined in 40 CFR 86.081–2.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 86.078–7(c) which concern either the vehicle (or engine) certified, or any production vehicle (or production engine) which when completed will be claimed to be covered by this certificate. Failure to comply with all the requirements of § 86.078–7(c) with respect to any such vehicle (or engine) may lead to revocation or suspension of this certificate as specified in 40 CFR 86.081–30(c). It is also a term of this certificate that this certificate may be revoked or suspended for the other reasons stated in § 86.081–30 (c) or (d).

(3) One such certificate will be issued for each engine family. For gasoline-fueled light-duty vehicles and light-duty trucks, one such certificate will be issued for each engine family-evaporative emission family combination. Each certificate will certify compliance with no more than one set of standards except for low-altitude standards and high-altitude standards.

(4) The adjustment or modification of any light-duty vehicle or light-duty truck in accordance with instructions provided by the manufacturer as approved by EPA for the altitude where the vehicle is principally used, will not be considered a violation of section 203(a)(3) of the Clean Air Act.

(5) For the purpose of this subpart, "designated high-altitude location" is any county which has substantially all of its area located above 1,219 meters (4,000 feet) and which is identified below:

Counties Located Substantially Above 1,219 Meters (4,000 Feet) in Elevation

State of Arizona

Apache	Navajo
Cochise	Yapai
Coconino	

State of Colorado

Adams	Alamosa
Arapahoe	Lake
Archuleta	La Plata
Boulder	Larimer
Chaffee	Las Animas
Cheyenne	Lincoln
Clear Creek	Mesa
Conejos	Mineral
Costilla	Moffat
Crowley	Montezuma
Custer	Montrose
Delta	Morgan
Denver	Otero
Dolores	Ouray
Douglas	Park
Eagle	Pitkin
Elbert	Pueblo
El Paso	Rio Blanco
Fremont	Rio Grande
Garfield	Routt
Gilpin	Saguache
Grand	San Juan
Gunnison	San Miguel
Hinsdale	Summit
Huerfano	Teller
Jefferson	Washington
Jackson	Weld
Kit Carson	

State of Idaho

Bannock	Custer
Bear Lake	Franklin
Bingham	Fremont
Blaine	Jefferson
Bonneville	Lemhi
Butte	Madison
Camas	Minidoka
Caribou	Oneida
Cassia	Power
Clark	Teton
	Valley

State of Montana

Beaverhead	Madison
Deer Lodge	Meagher
Gallatin	Park
Jefferson	Silver Bow
Judith Basin	Wheatland
Powell	

State of Nebraska

Banner	Kimball
Cheyenne	Sioux

State of Nevada

Carson City	Lander
Douglas	Lyon
Elko	Mineral
Esmeralda	Nye
Eureka	Pershing
Humboldt	Storey
Lincoln	Washoe
	White Pine

State of New Mexico

Bernalillo	Mora
Catron	Rio Arriba
Colfax	Sandoval
Curry	San Juan
De Baca	San Miguel
Grant	Santa Fe
Guadalupe	Sierra
Harding	Socorro
Hidalgo	Roosevelt
Lincoln	Taos
Los Alamos	Torrance
Luna	Union
McKinley	Valencia
Otero	

State of Oregon

Harney	Klamath
Lake	

State of Texas

Jeff Davis	Parmer
Hudspeth	

State of Utah

Beaver	Piute
Box Elder	Rich
Cache	Salt Lake
Carbon	San Juan
Daggett	Sanpete
Davis	Sevier
Duchesne	Summit
Emery	Tooele
Garfield	Uintah
Grand	Utah
Iron	Wasatch
Juab	Wayne
Kane	Weber
Millard	
Morgan	

State of Wyoming

Albany	Natrona
Campbell	Niobrara
Carbon	Park
Converse	Platte
Fremont	Sublette
Goshen	Sweetwater
Hot Springs	Teton
Johnson	Uinta
Laramie	Washakie
Lincoln	Weston

(6) The provisions of paragraph (a)(4) of this section shall not apply to any light-duty vehicle or light-duty truck sold, offered for sale, introduced, or delivered for introduction into commerce in California provided that the vehicle is covered by a certificate of conformity with emission standards in effect in California.

(7) Certificates issued for light-duty vehicles or light-duty trucks certified with catalytic converters shall be subject to the following term in addition to the term in paragraph (a)(2) of this section: "Catalyst-equipped vehicles, otherwise covered by this certificate, which are driven outside the United States, Canada, and Mexico will be presumed to have been operated on leaded gasoline resulting in deactivation of the catalysts. If these vehicles are imported or offered for the importation without retrofit of the catalyst, they will be considered not to be within the coverage of this certificate unless included in a catalyst control program operated by a manufacturer or a United States Government Agency and approved by the Administrator."

(8) Certificates issued for incomplete light-duty trucks shall be subject to the following term in addition to the term in paragraph (a)(2) of this section: "For incomplete light-duty trucks, this certificate covers only those new motor vehicles which when completed by having the primary load-carrying device or container attached, conform to the maximum curb weight and frontal area limitations described in the application for certification as required in 40 CFR 86.081–21(d)."

(9) Certificates issued for heavy-duty engines shall be subject to the following term in addition to the term in

paragraph (a)(2) of this section: "For heavy-duty engines, this certificate covers only those new motor vehicle engines installed in heavy-duty vehicles which conform to the minimum gross vehicle weight rating, curb weight, or frontal area limitations for heavy-duty vehicles described in 40 CFR 86.081–2."

(b)(1) The Administrator will determine whether a vehicle (or engine) covered by the application complies with applicable standards by observing the following relationships:

(i) *Light-duty vehicles and light-duty trucks.* (A) The durability-data vehicle(s) selected under § 86.081–24(c)(1)(i) shall represent all vehicles of the same engine-system combination.

(B) The emission-data vehicle(s) selected under § 86.081–24(b)(1)(ii), shall represent all vehicles of the same engine-system combination as applicable.

(C) The emission-data vehicle(s) selected under § 86.081–24 (b)(1)(vii)(A) and (b)(1)(vii)(B) shall be represent all vehicles of the same evaporative emission control system within the evaporative emission family.

(D) The emission-data vehicle(s) selected under § 86.081–24(b)(1)(v) shall represent all vehicles of the same engine-system combination to be sold at high altitude.

(E) The emission-data vehicle(s) selected under § 86.081–24(b)(1)(vii)(D) shall represent all vehicles of the same evaporative emission control system within the evaporative emission family sold at high altitude.

(ii) *Gasoline-fueled heavy-duty engines.* (A) A test engine selected under § 86.081–24(b)((2)(ii) and (iv) shall represent all engines in the same engine family of the same engine displacement-exhaust emission control system combination.

(B) A test engine selected under § 86.081–24(b)(2)(iii) shall represent all engines in the same engine family of the same engine displacement-exhaust emission control system combination.

(C) A test engine selected under § 86.081–24(c)(2)(i) shall represent all engines of the same engine-system combination.

(iii) *Diesel heavy-duty engines.* (A) A test engine selected under § 86.081–24(b)(3)(ii) shall represent all engines in the same engine-system combination.

(B) A test engine selected under § 86.081–24(b)(3)(iii) shall represent all engines of that emission control system at the rated fuel delivery of the test engines.

(C) A test engine selected under § 86.081–24(c)(3)(i) shall represent all engines of the same engine-system combination.

(2) The Administrator will proceed as in pararaph (a) of this section with respect to the vehicles (or engines) belonging to an engine family or engine family-evaporative emission family combination (as applicable), all of which comply with all applicable standards.

(3) If, after a review of the test reports and data submitted by the manufacturer, data derived from any additional testing conducted pursuant to § 86.079–29, data or information derived from any inspection carried out under § 86.078–7(c) or any other pertinent data or information, the Administrator determines that one or more test vehicles (or test engines) of the certification test fleet do not meet applicable standards, he will notify the manufacturer in writing, setting forth the basis for his determination. Within 30 days following receipt of the notification, the manufacturer may request a hearing on the Administrator's determination. The request shall be in writing, signed by an authorized representative of the manufacturer and shall include a statement specifying the manufacturer's objections to the Administrator's determination and data in support of such objections. If, after a review of the request and supporting data, the Administrator finds that the request raises a substantial factual issue, he shall provide the manufacturer a hearing in accordance with § 86.078–6 with respect to such issue.

(4) For light-duty vehicles and light-duty trucks the manufacturer may, at his option, proceed with any of the following alternatives with respect to an emission-data vehicle determined not in compliance with all applicable standards for which it was tested:

(i) Request a hearing under § 86.078–6; or

(ii) Remove the vehicle configuration (or evaporative vehicle configuration, as applicable) which failed, from his application;

(A) If the failed vehicle was tested for compliance with exhaust emission standards only: The Administrator may select, in place of the failed vehicle, in accordance with the selection criteria employed in selecting the failed vehicle, a new emission-data vehicle to be tested for exhaust emission compliance only.

(B) If the failed vehicle was tested for compliance with both exhaust and evaporative emission standards: The Administrator may select, in place of the failed vehicle, in accordance with the selection criteria employed in selecting the failed vehicle, a new emission-data vehicle which will be tested for compliance with both exhaust and evaporative emission standards. If one vehicle cannot be selected in accordance with the selection criteria employed in selecting the failed vehicle, then two vehicles may be selected (i.e., one vehicle to satisfy the exhaust emission vehicle selection criteria and one vehicle to satisfy the evaporative emission vehicle selection criteria). The vehicle selected to satisfy the exhaust emission vehicle selection criteria will be tested for compliance with exhaust emission standards only. The vehicle selected to satisfy the evaporative emission vehicle selection criteria will be tested for compliance with both exhaust and evaporative emission standards; or

(iii) Remove the vehicle configuration (or evaporative vehicle configuration, as applicable) which failed from the application and add a vehicle configuration(s) (or evaporative vehicle configuration(s), as applicable) not previously listed. The Administrator may require, if applicable, that the failed vehicle be modified to the new engine code (or evaporative emission code, as applicable) and demonstrate by testing that it meets applicable standards for which it was originally tested. In addition, the Administrator may select, in accordance with the vehicle selection criteria given in § 86.081–24(b), a new emission-data vehicle or vehicles. The vehicles selected to satisfy the exhaust emission vehicle selection criteria will be tested for compliance with exhaust emission standards only. The vehicles selected to satisfy the evaporative emission vehicle selection criteria will be tested for compliance with both exhaust and evaporative emission standards; or

(iv) Correct a component or system malfunction and show that with a correctly functioning system or component the failed vehicle meets applicable standards for which it was originally tested. The Administrator may require a new emission-data vehicle, of identical vehicle configuration (or evaporative vehicle configuration, as applicable) to the failed vehicle, to be operated and tested for compliance with the applicable standards for which the failed vehicle was originally tested.

(5) For heavy-duty engines the manufacturer may, at his option, proceed with any of the following alternatives with respect to any engine family represented by a test engine(s) determined not in compliance with applicable standards:

(i) Request a hearing under § 86.078–6; or

(ii) Delete from the application for certification the engines represented by the failing test engine. (Engines so deleted may be included in a later request for certification under 86.079–

32.) The Administrator will then select in place of each failing engine an alternate engine chosen in accordance with selection criteria employed in selecting the engine that failed; or

(iii) Modify the test engine and demonstrate by testing that it meets applicable standards. Another engine which is in all material respects the same as the first engine, as modified, shall then be operated and tested in accordance with applicable test procedures.

(6) If the manufacturer does not request a hearing or present the required data under paragraphs (b)(4) or (b)(5) (as applicable) of this section, the Administrator will deny certification.

(c)(1) Not withstanding the fact that any certification vehicle(s) (or certification engine(s)) may comply with other provisions of this subpart, the Administrator may withhold or deny the issuance of a certificate of conformity (or suspend or revoke any such certificate which has been issued) with respect to any such vehicle(s) (or engine(s)) if:

(i) The manufacturer submits false or incomplete information in his application for certification thereof;

(ii) The manufacturer renders inaccurate any test data which he submits pertaining thereto or otherwise circumvents the intent of the Act, or of this part with respect to such vehicle (or engine);

(iii) Any EPA Enforcement Officer is denied access on the terms specified in § 86.078–7(c) to any facility or portion thereof which contains any of the following:

(A) The vehicle (or engine):

(B) Any components used or considered for use in its modification or buildup into a certification vehicle (or certification engine);

(C) Any production vehicle (or production engine) which is or will be claimed by the manufacturer to be covered by the certificate;

(D) Any step in the construction of a vehicle (or engine) described in (C) of this subdivision;

(E) Any records, documents, reports, or histories required by this part to be kept concerning any of the above;

(iv) Any EPA Enforcement Officer is denied "reasonable assistance" (as defined in § 86.078–7(c)) in examining any of the items listed in paragraph (c)(1)(iii) of this section.

(2) The sanctions of withholding, denying, revoking, or suspending of a certificate may be imposed for the reasons in paragraphs (c)(1) (i), (ii), (iii), or (iv) of this section only when the infraction is substantial.

(3) In any case in which a manufacturer knowingly submits false or inaccurate information or knowingly renders inaccurate or invalid any test data or commits any other fraudulent acts and such acts contribute substantially to the Administrator's decision to issue a certificate of conformity, the Administrator may deem such certificate void ab initio.

(4) In any case in which certification of a vehicle (or engine) is proposed to be withheld, denied, revoked, or suspended under paragraph (c)(1)(iii), or (c)(1)(iv) of this section, and in which the Administrator has presented to the manufacturer involved reasonable evidence that a violation of § 86.078–7(c) in fact occurred, the manufacturer, if he wishes to contend that, even though the violation occurred, the vehicle (or engine) in question was not involved in the violation to a degree that would warrant withholding denial, revocation, or suspension of certification under either paragraph (c)(1)(iii) or (c)(1)(iv) of this section, shall have the burden of establishing that contention to the satisfaction of the Administrator.

(5) Any revocation or suspension of certification under paragraph (c)(1) of this section shall:

(i) Be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.078–6 hereof.

(ii) Extend no further than to forbid the introduction into commerce of vehicles (or engines) previously covered by the certification which are still in the hands of the manufacturer, except in cases of such fraud or other misconduct as makes the certification invalid ab initio.

(6) The manufacturer may request in the form and manner specified in paragraph (b)(3) of this section that any determination made by the Administrator under paragraph (c)(1) of this section to withhold or deny certification be reviewed in a hearing conducted in accordance with § 86.078–6. If the Administrator finds, after a review of the request and supporting data, that the request raises a substantial factual issue, he will grant the request with respect to such issue.

(d)(1) Notwithstanding the fact that any vehicle configuration or engine family may be covered by a valid outstanding certificate of conformity, the Administrator may suspend such outstanding certificate of conformity in whole or in part with respect to such vehicle configuration or engine family if:

(i) The manufacturer refuses to comply with the provisions of a test order issued by the Administrator pursuant to § 86.603; or

(ii) The manufacturer refuses to comply with any of the requirements of § 86.603; or

(iii) The manufacturer submits false or incomplete information in any report or information provided pursuant to the requirements of § 86.609; or

(iv) The manufacturer renders inaccurate any test data which he submits pursuant to § 86.609; or

(v) Any EPA Enforcement Officer is denied access to a facility on the terms specified in § 86.606.

(vi) Any EPA Enforcement Officer is denied the opportunity on the terms specified in § 86.606, to:

(A) Monitor vehicle selection pursuant to § 86.607, or

(B) Select vehicles for testing pursuant to § 86.607, or

(C) Monitor vehicle testing performed to satisfy any of the requirements of this part; or

(vii) Any EPA Enforcement Officer is denied "reasonable assistance" as defined in § 86.606 in examining any of the items listed in that section; or

(viii) The manufacturer refuses to comply with the requirements of §§ 86.604(a), 86.605, and 86.607, 86.608, 86.610, or 86.611.

(2) The sanction of suspending a certificate may not be imposed for the reasons in paragraphs (d)(1)(i), (ii), or (viii) of this section where such refusal is caused by conditions and circumstances outside the control of the manufacturer which renders it impossible to comply with those requirements. Such conditions and circumstances shall include, but not be limited to, any uncontrollable factors which result in the temporary unavailability of equipment and personnel needed to conduct the required tests, such as equipment breakdown or failure or illness of personnel, but shall not include failure of the manufacturer to adequately plan for and provide the equipment and personnel needed to conduct the tests. The manufacturer will bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

(3) The sanctions of suspending a certificate may be imposed for the reasons in paragraphs (d)(1)(iii), (iv), (v), (vi), or (vii) of this section only when the infraction is substantial.

(4) In any case in which a manufacturer knowingly submitted false or inaccurate information or knowingly rendered inaccurate any test data or committed any other fraudulent acts, and such acts contributed substantially to the Administrator's original decision

not to suspend or revoke a certificate of conformity in whole or in part, the Administrator may deem such certificate void from the date of such fraudulent act.

(5) In any case in which certification of a vehicle is proposed to be suspended under paragraphs (d)(1)(v), (d)(1)(vi), or (d)(1)(vii) of this section, and in which the Administrator has presented to the manufacturer involved reasonable evidence that a violation of § 86.606 in fact occurred, the manufacturer, if he wishes to contend that even though the violation occurred, the vehicle configuration or engine family in question was not involved in the violation to the degree that would warrant suspension of certification under either paragraph (d)(1)(v), (d)(1)(vi), or (d)(1)(vii) of this section, shall have the burden of establishing that contention to the satisfaction of the Administrator.

(6) Any suspension of certification under paragraph (d)(1) of this section shall:

(i) Be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.613 hereof, and

(ii) Not apply to vehicles no longer in the hands of the manufacturer.

8. Section 86.081–35 is added. This section is identical to § 86.079–35 except for paragraphs (a)(1)(iii)(D) and (a)(1)(iii)(F).

§ 86.081–35 Labeling.

(a) The manufacturer of any motor vehicle (or motor vehicle engine) subject to the applicable emission standards of this subpart, shall, at the time of manufacture, affix a permanent legible label, of the type and in the manner described below, containing the information hereinafter provided, to all production models of such vehicles (or engines) available for sale to the public and covered by a certificate of conformity under § 86.081–30(a).

(1) *Light-duty vehicles and light-duty trucks.* (i) A permanent, legible label shall be affixed in a readily visible position in the engine compartment.

(ii) The label shall be affixed by the vehicle manufacturer who has been issued the certificate of conformity for such vehicle, in such a manner that it cannot be removed without destroying or defacing the label. The label shall not be affixed to any equipment which is easily detached from such vehicle.

(iii) The label shall contain the following information lettered in the English language in block letters and numerals, which shall be of a color that contrasts with the background of the label:

(A) The label heading: Vehicle Emission Control Information;

(B) Full corporate name and trademark of manufacturer;

(C) Engine displacement (in cubic inches), engine, family identification and evaporative family identification;

(D) Engine tune-up specifications and adjustments, as recommended by the manufacturer in accordance with the applicable high or low altitude emission standards, including but not limited to idle speed(s), ignition timing, the idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop), high idle speed, initial injection timing, and valve lash (as applicable), as well as other parameters deemed necessary by the manufacturer. These specifications should indicate the proper transmission position during tune-up and what accessories (e.g., air conditioner), if any, should be in operation. If adjustments or modifications to the vehicle are necessary to insure compliance with either the emission standards at low altitude or the optional emission standards at high altitude, the manufacturer shall either include the instructions for such adjustments on the label, or indicate on the label where instructions for such adjustments may be found. The label shall indicate whether the engine tune-up or ajustment specifications are applicable to elevation below or above 4,000 feet.

(E) An unconditional statement of compliance with the appropriate model year U.S. Environmental Protection Agency regulations which apply to light-duty vehicles or light-duty trucks;

(F) For vehicles which demonstrate compliance with the optional high-altitude standards, a statement indicating that the vehicle was sold to the ultimate purchaser for principal use at high altitude.

(2) *Heavy-duty engines.* (i) A permanent legible label shall be affixed to the engine in a position in which it will be readily visible after installation in the vehicle.

(ii) The label shall be attached to an engine part necessary for normal engine operation and not normally requiring replacement during engine life.

(iii) The label shall contain the following information lettered in the English language in block letters and numerals which shall be of a color that contrasts with the background of the label:

(A) The label heading: Engine Exhaust Emission Control Information;

(B) Full corporate name and trademark of manufacturer;

(C) Engine displacement (in cubic inches) and engine family and model designations;

(D) Date of engine manufacturer (month and year);

(E) Engine specifications and adjustments as recommended by the manufacturer. These specifications should indicate the proper transmission position during tuneup and what accessories (e.g., air conditioner), if any, should be in operation;

(F) For gasoline-fueled engines the label should include the idle speed, ignition timing, and the idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop), and valve lash.

(G) For Diesel engines the label should include the advertised hp at rpm, fuel rate at advertised hp in mm^3/stroke, valve lash, initial injection timing, and idle speed.

(H) An unconditional statement of compliance with appropriate model year (e.g., 1979) U.S. Environmental Protection Agency regulations applicable to heavy-duty engines.

(iv) The label may be made up of one or more pieces; *Provided,* That all pieces are permanently attached to the same engine or vehicle part as applicable.

(b) The provisions of this section shall not prevent a manufacturer from also reciting on the label that such vehicle (or engine) conforms to any applicable State emission standards for new motor vehicles (or new motor vehicle engines) or any other information that such manufacturer deems necessary for, or useful to, the proper operation and satisfactory maintenance of the vehicle (or engine).

(c)(1) The manufacturer of any light-duty vehicle or light-duty truck subject to the emission standards of this subpart, shall, in addition and subsequent to setting forth those statements on the label required by the Department of Transportation (DOT) pursuant to 49 CFR 567.4, set forth, on the DOT label or on an additional label located in proximity to the DOT label and affixed as described in 49 CFR 567.4(b), the following information in the English language, lettered in block letters and numerals not less than three thirty-seconds of an inch high, of a color that contrasts with the background of the label:

(i) The heading: "Vehicle Emission Control Information";

(ii) The statement: "This Vehicle Conforms to U.S. EPA Regulations Applicable to 1979 Model Year New Motor Vehicles."

(iii) One of the following statements, as applicable, in letters and numerals not less than six thirty-seconds of an

inch high and of a color that contrasts with the background of the label:

(A) For all vehicles certified as non-catalyst-equipped: "NON–CATALYST";

(B) For all vehicles certified as catalyst-equipped which are included in a manufacturer's catalyst control program for which approval has been given by the Administrator: "CATALYST–APPROVED FOR IMPORT";

(C) For all vehicles certified as catalyst-equipped which are not included in a manufacturer's catalyst control program for which prior approval has been given by the Administrator: "CATALYST."

(2) In lieu of selecting either of the labeling options of paragraph (c)(1) of this section, the manufacturer may add the information required by paragraph (c)(1)(iii) of this section to the label required by paragraph (a) of this section. The required information will be set forth in the manner prescribed by paragraph (c)(1)(iii) of this section.

(d) Incomplete light-duty trucks or incomplete heavy-duty vehicles optionally certified as light-duty trucks shall have the following statement printed on the label required in paragraph (a)(1) of this section in lieu of the statement required by paragraph (a)(1)(iii)(E) of this section: "This vehicle conforms to U.S EPA regulations applicable to 19—— Model Year New Motor Vehicles when completed at a maximum curb weight of ———— pounds and a maximum frontal area of ———— square feet."

(e) Incomplete heavy-duty vehicles having an 8,500 pound gross vehicle weight rating or less shall have the following statement printed on the label required in paragraph (a)(2) or (a)(3) of this section in lieu of the statement required by paragraph (a)(2)(iii)(F) or (a)(3)(iii)(F) of this section: "This engine conforms to U.S. EPA regulations applicable to 19—— Model Year New Heavy-Duty Engines when installed in a vehicle completed at a curb weight of more than 6,000 pounds or with a frontal area greater than 45 square feet."

(f) The manufacturer of any incomplete vehicle shall notify the purchaser of such vehicle of any curb weight, frontal area, or gross vehicle weight rating limitations affecting the emissions certificate applicable to that vehicle. This notification shall be transmitted in a manner consistent with National Highway Traffic Safety Administration safety notification requirements published in 49 CFR Part 568.

(Secs. 202, 206, 301, Clean Air Act as amended, 42 U.S.C. 7521, 7525, and 7601(a).)

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